REMARKS

The Office Action dated June 12, 2006, has been received and carefully noted. The above amendments to the specification and claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 1-15 and 17-37 have been amended to more particularly point out and distinctly claim the subject matter of the invention. Claim 16 has been canceled and claims 38-41 have been added. No new matter has been added, and no new issues are raised which require further consideration and/or search. Claims 1-15 and 17-41 are submitted for consideration.

The disclosure was objected to because of informalities. Specifically, the disclosure was objected to because paragraph 0006 is missing the word "mobile" in the last sentence and because the third line of paragraph 0008 is missing the word "if" between the words check and there. The disclosure has been amended to overcome this objection. Therefore, Applicants request that this objection be withdrawn.

Claim 37 was rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 37 have been amended to overcome this rejection. Therefore, Applicants request that this rejection be withdrawn.

Claims 1-18, 30-31, 34 and 35-37 were rejected under 35 U.S.C. 102(b) as being anticipated by IEEE document XP010642591 to Cheung. The rejection is traversed as being based on a reference that neither teaches nor suggests the novel combination of

features clearly recited in independent claims 1, 18, 30, 31, 36 and 37 and newly added claims 38-41.

Claim 1, upon which claims 2-15 and 17 depend, recites a method including determining if a first radio link or a second link of a plurality of links is limiting capacity of a connection including the first radio link and the second link. The method also includes changing at least one parameter relating to at least one of the first and the second links to change the capacity of the first link or the second link if the at least one of the first and the second links is limiting capacity of the connection, whereby the average power per bit in the radio link is changed.

Claim 18 recites a method including determining if a first radio link or a second link is limiting capacity of a connection including the first radio link and the second link. The method also includes changing at least one parameter relating to at least one of the first and the second links whereby the other of the first and the second links is used to improve the quality of the connection if the one of the first and the second links is limiting capacity, and whereby the average power per bit in the radio link is changed.

Claim 30, upon which claims 34 and 35 depend, recites a controller including a determining unit configured to determine if a first radio link or a second link is limiting capacity of a connection including the first radio link and the second link and a unit configured to cause at least one parameter relating to at least one of the first and the second links to be changed, thereby changing the capacity of the at least one of the first and the second links, if the first link or the second link is limiting capacity in the connection,

whereby the average power per bit in the radio link is changed.

Claim 31 recites a controller including a determining unit configured to determine a first radio link or a second link is limiting capacity of a connection including the first radio link and the second link. The controller also includes a unit configured to cause at least one parameter relating to at least one of the first and the second links to be changed if the first link or the second link is limiting capacity whereby another of the first and second links is used to improve the quality of the connection, whereby the average power per bit in the radio link is changed.

Claim 36 recites a system including a first entity, a second entity and a third entity, wherein a connection is establishable between the first, second and third entities with a first link provided between the first entity and the second entity and a second link provided between the second entity and the third entity. The system also includes a controller for controlling the connection including the first link and the second link, the controller including a determining unit configured to determine if the first link or the second link is limiting capacity of the connection and changing at least one parameter for relating to at least one of the first and the second links to change the capacity of the first link or the second link if the one of the first and the second links is limiting capacity in the connection

Claim 37 recites a computer program product embodied on a computer readable medium, the computer program product including software code portions, the software code portions, when executed, to effect determining if a first link or a second link is

limiting capacity of a connection including the first link and the second link. The code portions also effect changing at least one parameter relating to at least one of the first and the second links to change capacity of the first link or the second link if the one of the first and the second links is limiting capacity in the connection.

As outlined below, Applicants submit that the cited reference of Cheung does not teach or suggest the elements of claims 1, 18, 30, 31, 36 and 37 and the dependent claims thereon.

Cheung describes a method of optimizing the use of bandwidth for a stream of data. Excess bandwidth in a non-limiting link is utilized to provide error correction in that link in order to increase the overall Quality of Service (QoS). In the method described by Cheung, the streamed data is transmitted at the maximum rate supported by both links. Normally, one link has a higher bandwidth capability and this excess bandwidth may be unused. Cheung teaches determining which link is limiting. If the wireless link is found to be limiting, a server transmits the data, along with FEC codes to allow for wireless losses, at the maximum rate of the wireless network.

Excess bandwidth in the wired network is used to resend lost packets to improve the overall QoS. If it is found that the wired network is limiting, the server transmits the data at the maximum rate of the wired network without including any FEC codes, these codes are then added at the wired/wireless junction to allow for losses in the wireless network.

Applicants submit that Cheung does not teach or suggest each element of claims 1, 18, 30, 31, 36 and 37. Each of independent claims 1, 18, 30, 31, 36 and 37 recites, in part, changing one or more parameters relating to at least one of the links to change the capacity of at least one of the links, whereby the average power per bit in the radio link is changed. Cheung only considers the situation when a single stream of data is transmitted with a mismatch of available bandwidth in the two links. In the method described by Cheung, in each case the data transmitted on the wireless network includes a layer of FEC to combat wireless loss. The FEC bits may originate at the server if the wireless network is limiting or at the wired/wireless link if the wired network is limiting. Therefore the ratio of transmitted bits to data bits in the wireless network, and therefore the power per data bit in the absence of any other feature affecting the transmit power, is the same in both cases. Thus, Cheung does not teach or suggest changing one or more parameters relating to at least one of the links to change the capacity of at least one of the links, whereby the average power per bit in the radio link is changed, as recited in claims 1, 18, 30, 31, 36 and 37. Based on the above, Applicants respectfully assert that the rejection under 35 U.S.C. §102(b) should be withdrawn because Cheung each feature of claims 1, 18, 30, 31, 36 and 37 and hence, dependent claims 2-17, 34, and 35 thereon.

Claims 19-29 and 32-33 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent Publication No. 20020146024 to Harris. The rejection is traversed as being based on a reference that neither teaches nor suggests the novel combination of

features clearly recited in independent claims 19, 29 and 32-33 and newly added claims 38-41.

Claim 19, upon which claims 20-28 depend, recites a method including determining if resources are available in a first link and a second link for a given bit rate to select a bit rate for a connection including a first link and second link. The method also includes selecting a bit rate from a plurality of bit rates for which it is determined in the determining that resources are available in both the first and the second links and using the selected bit rate in the connection.

Claim 29 recites a method including selecting a new bit rate for a connection of a plurality of connections to change a bit rate for one of the plurality of connections including a first link and a second link. The method also includes determining if resources are available in both the first and second links for the new bit rate and selecting the new bit rate for the connection if the resources are available.

Claims 32 recites a controller including a determining unit configured to determine a plurality of bit rates if resources are available in both a first and second links for a given bit rate to select a bit rate for a connection including a first link and a second link; and a selecting unit configured to select a bit rate for which it is determined in the determining that the resources are available in both the first and second links.

Claim 33 recites a controller including a unit configured to select a new bit rate for one connection to change the bit rate for the one connection of a plurality of connections including a first link and a second link and a unit configured to determine if resources are

available in both the first and second links for the new bit rate. The controller also includes a unit configured to select the new bit rate for the connection if the resources are available.

As outlined below, Applicants submit that the cited reference of Harris does not teach or suggest the elements of claims 19-29 and 32-33.

Harris describes a method of optimizing a transmission rate for a data stream in a wireless network to match an unknown bottleneck bandwidth located in a wired network. The described method monitors the length of the transmission queue for the wireless network increasing the transmission rate of the wireless network if queue size increases beyond an upper threshold value and decreasing transmission rate if the queue size decreases below a lower threshold. In this way, the allocated bandwidth in the wireless network is altered until it matches the bottleneck bandwidth which is assumed to be in the wired network. The case in which the wireless network limits available bit rate is not considered.

Applicants submit that Harris does not teach or suggest each element of claims 19-29 and 32-33. Each of independent claims 19, 29 and 32-33 recites, in part, determining that resources are available in both the first and the second links and using the selected bit rate in the connection. Harris does not disclose determining if resources are available for a certain bit rate in both networks as required by claims 19, 29 and 32-33 but rather chooses a bit rate for the wireless network to match an unchangeable bit rate in the wired network. Therefore, Applicants respectfully assert that the rejection under 35 U.S.C.
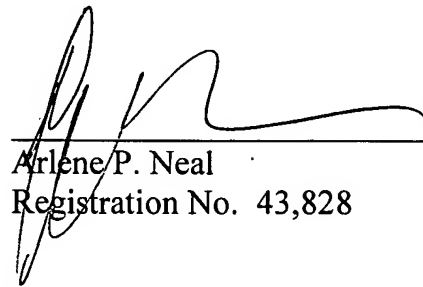
§102(b) should be withdrawn because Harris each feature of claims 19, 29 and 32-33 and hence, dependent claims 20-28 thereon.

As noted previously, claims 1-15 and 17-41 recite subject matter which is neither disclosed nor suggested in the prior art references cited in the Office Action. It is therefore respectfully requested that all of claims 1-15 and 17-41 be allowed and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

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Enclosures: Additional Claim Fee Transmittal
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